







REPORT  
ON THE  
**ADMINISTRATION**  
OF THE  
**DEPARTMENT OF STATISTICS**  
**H.E.H. the Nizam's Government**

FOR THE YEAR

**1340 Fasli**

(6th October 1930 to 5th October 1931 A.D.)

**PART I**



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**REPORT**  
ON THE  
**ADMINISTRATION OF THE DEPARTMENT OF STATISTICS**  
**1840 FASLI**

*Direction.*—I held the offices of Director of Statistics and Census Commissioner throughout the year. Moulvi Abu Muhammad Sahib and Mr. Mir Mohiuddin Khan continued to be Assistants.

Moulvi Mazhar Hussain, M.A., B.Sc., who remained attached to the Statistics Department for special work, visited Warangal district between 17th and 26th Bahman and Madras between 24th Isfandar and 20th Farwardi. In the former district he examined the methods employed by patwaris and other revenue officials for estimating and reporting the area and yield of principal crops and in Madras he studied the work done by the statistical branch of the Agriculture Department.

*Visits.*—In Ardibehisht (March) the Department was visited by Mr. J. V. Joshi, M.A., Deputy Director-General of Statistics, Government of India, in order to scrutinise our system of preparing cotton forecasts and to suggest some better method.

Dr. J. H. Hutton, D.Sc., C.I.E., the Census Commissioner for India visited in Thir (May) the Census Office and also the Amrabad hills inhabited by Chenchawars, an aboriginal tribe.

*Livestock Census.*—The report of the quinquennial Cattle Census, as approved by the Revenue Secretary, together with statistics analysed in tabular form, was sent to the press.

*Population Census.*—The decennial Census was taken on the night of the 24th Farwardi (26th February). Prior to that date I was constantly on tour inspecting the progress of work in every part of the Dominions. A separate report for the year is being submitted to Government.

*Tour.*—Although all the touring that I did during the year was in connection with Census, I took advantage of the opportunity to inspect statistical registers and other records of the tahsil offices and personally emphasized upon the district officers the necessity of collecting and reporting accurate data.

*Function of the Department.*—The work of the Department consisted, as usual, in the collection, compilation, and presentation of statistics relating to agriculture, livestock, industries, trade and prices. They were published for the information of the State, the Government of India, the trade, banks and railways. The States of Mysore and Baroda, the Egyptian Government, and the Bureaux of Statistics and Census of Great Britain, Canada, Australia and New Zealand and the University of Chicago also obtained copies of some publications in exchange for theirs. The publications issued periodically were :—

1. Season and crop reports.
2. Crop forecasts.
3. Agricultural statistics.
4. Trade statistics.
5. Price statistics
6. List of joint stock companies.
7. Large industrial establishments.
8. Textile mills statistics.
9. Returns of cotton bales pressed.

*Season and crop report.*—(i). This is a weekly analysis of tahsil reports on the condition of rainfall and weather, progress of farm work, crops, water and fodder supply, health of livestock and movement of average retail prices of the three of the principal food-grains. The report in three different forms was issued to 39 addresses.

A retrospective survey of the seasonal and agricultural conditions during the year is given in the Statistical Volume II.

(ii). In addition, a detailed weekly report was compiled and presented to Government beginning from Aban for the following tahsils, which in the previous year had been affected by scarcity :— Alampur, Deodrug, Gangawati, Kushtagi, Lingsugur, Manvi and Raichur taluks of the Raichur district.

(iii). During the south-west monsoon, a monthly report on the same lines embracing seasonal and economic conditions of the Dominions was made available to the Government of India, which was also supplied with

(iv). a brief account of rainfall and crop prospects for the agricultural year.

*Rain gauges.*—Information was collected from all rain gauge stations as to the type of gauges employed to record rainfall and the situation thereof. It was found as a result of the enquiry that 59 gauges were incomplete in equipment and that some were located either on the roof of buildings or on basements in the midst of houses and trees or tied to a post as in the case of Manthani. Government has sanctioned Rs. 5,500 for purchasing and fixing 60 gauges. A type design together with an estimated cost of erection has been called for from the P.W.D and a site plan from the tahsils. Early next year 60 new standard gauges will be purchased and installed.

*Crop forecasts.*—It has been the practice for many years for the tahsils to send some of their crop forecasts direct to this office without the scrutiny and approval of the Talukdar. This procedure was put a stop to, the Talukdars having been instructed to receive in the first instance all tahsil returns and, after check, send this office a consolidated statement.

As stated in the previous report the rates of yield of crops per acre as suggested by Dr. H. H. Mann, D.Sc., were used as the basis of calculation. But in the case of cotton the result arrived at was unsatisfactory to the Director-General of Commercial Intelligence and Statistics, Calcutta. He observed in his letter No. 1464/P dated 18th February 1931 that “the All-India cotton forecasts published by me have been greatly affected by the radical change in the basis of compiling your State cotton forecasts. The All-India cotton forecasts are already believed to be very much under estimated and that the recent lowering in the State cotton forecasts has aggravated the position.”

With a view, therefore, to investigate the method of our calculation, the Deputy Director-General of Statistics, Government of India, came to Hyderabad in Ardibehisht (March) and conferred with the Director-General and Secretary, Revenue, the Director-General and Secretary, Commerce and Industries and me. It was found that the district officers reported the figures of both the *annawari* as well as the yield to the office of Director of Statistics, which, rejecting the figures of the total yield, applied the *annawari* estimates to the standard yields of Dr. Mann and thus worked out the total for each district. The result was a considerable lowering of the outturn of cotton throughout the State. The difficulty which would arise in any attempt to improve the reporting of the district authorities as regards *annawari* was realised and it was felt that improvement in the forecast could only be effected in the Statistics Department by applying to the district figures some correction worked out from experience. To help to devise this correcting factor, figures of

cotton yield in the various districts as reported by the districts and published by this office were compiled and a statement of anna estimates, outturns, exports by road and rail, and estimates of leakage across the borders, and home and mill consumption was made for ten years and furnished to the Director-General of Commercial Intelligence and Statistics, Calcutta. To further discuss matters with him I went to Calcutta in Aban (September) and as a result of it the following recommendation was made by the Director-General:—

"The estimate of total outturn of the crop is the combined product of the three factors, viz., (1) area, (2) condition factor or anna valuation of the crop and (3) the normal outturn of the crop per acre. As regards the first factor *i.e.*, area, there is no difficulty as the figures may be taken to be fairly correct. So far as the third factor, viz., normal outturns per acre of the crops, is concerned, these have recently been arrived at after a very detailed and special investigation conducted by an expert and experienced Director of Agriculture, Dr. Mann. A perusal of the note prepared by that officer shows that he arrived at these figures after a very careful consideration of all the available material on the subject. These figures may therefore be regarded as the best available under the present circumstances. Of course the normals fixed by Dr. Mann are liable to be revised as the results of crop-cutting experiments, which the State has recently arranged, became available. But not until a sufficient number of experiments are carried out for each district to allow of general conclusion being drawn from them, would it be advisable to work with any figures other than those provisionally fixed by Dr. Mann. As regards the anna valuation of the crop, it seems that it is mostly an integration of opinion of the local staff. It is an admitted fact that these *annawari* figures as reported by the village or taluk officers are very much underestimated.

"A study of these figures as supplied for the last 10 years by the State also supports the above view taking as an illustration the case of the Aurangabad district, where the reported *annawari* figures during the last ten years were as follows:—

1921—22	..	11 annas
1922—23	..	10 "
1923—24	..	8 "
1924—25	..	12 "
1925—26	..	10 "
1926—27	..	10 "
1927—28	..	10 "
1928—29	..	10 "
1929—30	..	9 "
1930—31	..	8 "
Average ..	9 8	"

2. "As 16 annas represent a normal crop in the State, the above figures show that a normal crop is seldom or never reported on by the district staff. In fact during the last ten years for which figures have been supplied to us, the estimate did not come to even three-fourths of the normal except on one occasion. This is not to be wondered at, for the normal crop in relation to which the *annawari* figure has to be estimated is rather hard to envisage. The idea of the normal crop is to most people a crop which they would long to see but rarely do. It is often forgotten that a normal crop has also its fair share of crop vicissitudes. Accordingly the normal in relation to which the anna estimates are framed is not really the normal but something much above it. In other words, there is a natural tendency to confuse a "normal" crop with an ideal crop and the result is that the normal crop is appraised by the district officers on a very much exaggerated scale. The problem then is to allow for this bias

in the scale with which district officers measure the crop ; and this allowance can be made on the basis of the statistical study of the distribution of the *annawari* figures reported by the district staff over a series of years.

3. "In order to see how this is possible, it is necessary to clear up the ideas of what a normal crop is. Various definitions of the normal crop have been put forward from time to time but the most accepted definition is "that crop which past experience has shown to be the most generally recurring crop in a series of years : the typical crop of the local area." It is evident from the above that if we have crop estimates for a series of years, the "modal" value will represent the normal crop. Unfortunately the *annawari* figures are not available for more than ten years, and consequently it is not possible to locate the "mode" precisely. Moreover the determination of the "mode" presupposes a knowledge of the statistical technique known as curve-fitting, which cannot possibly be applied to such a short series of figures as the State possesses. The next best plan may therefore be followed. Assuming that the period covering the last ten years for which figures are available is sufficiently long and does not contain a series of specially good seasons or specially bad seasons and that therefore it is a fair sample of good, bad and indifferent years, the arithmetic average of the estimates may be taken as approximating to the "modal" value, and the former may be regarded as the normal crop according to the district officers' scale. Thus taking the Aurangabad district as an example, it will be seen that the "modal" value of the anna estimate will be somewhere near 10 annas, for it was the crop which was reported five times out of the ten years for which figures are available. The arithmetic average of the estimates is also 9 8 annas, and this figure may therefore be taken to represent the normal crop according to the idea of the scale held by the local officer of that district. Having arrived at this, the actual correction can be effected simply as follows :—

Suppose for the current year *i.e.*, 1931-32, the district officer of the Aurangabad district reports a crop of 11 annas. We have seen that according to that district officer's estimate 9 8 annas represent a normal or a 100 per cent. crop. Consequently when he reports a crop of 11 annas, the crop is actually  $\frac{11}{9.8}$  per cent *i.e.*,  $11 \times \frac{100}{9.8}$  of the normal. The standard

normal yield per acre in the district—which is equivalent to 100 per cent. crop—as fixed by Dr. Mann is 100 lbs. per acre. consequently the estimate of yield per acre in the district during 1931-32 would be  $100 \times \frac{11}{9.8}$  lbs. (*i.e.*  $100 \times \frac{11}{9.8}$ )

per acre. This figure multiplied by the area of the district in the particular year will give the total yield of the crop in the district during the year in question. The above method may be followed in the case of the other districts of the State and the total yields for the districts may be obtained, which, when added together, will give the total yield for the State.

In conclusion, it may be stated that the method described above is not altogether free from defects, but it appears to be the best in the present circumstances and I would therefore suggest that it be tried in the State. It is also suggested that, at the end of each cotton year when the trade figures are available an attempt should be made to ascertain the actual crop by means of statistics of net exports and consumption and these actuals compared with the result arrived at according to the method described in this note. The State may kindly be requested to keep us informed of the result of such comparisons from time to time. The correcting factor should also be revised from year to year as new *annawari* figures are available. This will allow to some extent for any change in reporting that may take place in future.

5. The above method was applied to the estimates for 1930-31 with the following result :—

Crop estimate by above method	..	650,000 bales
Crop estimate as reported by the State	..	382,000 ,,
Estimate (worked out by the State based on consumption) ..	..	51,000
Net export ..	..	563,000 ,,
		Total .. 614,000

The new basis of calculation suggested above, having been approved by Government, will be tried for the next year crop.

Another noteworthy point in connection with forecasts is that the Government of India, at the instance of the Indian Central Cotton Committee, emphasized the desirability of punctual submission of forecasts of all crops (Revenue Secretary's letter No. 745 dated 5-9-1940 F.) and pointed out that the crop forecasts should be kept strictly confidential; that the practice of publishing the provincial forecasts in advance of all-India forecasts should be discontinued and that the publication of all forecasts be postponed until, say, two days after the date prescribed for the publication of the all-India forecasts.

The crops for which forecasts were published were :—

Cotton	..	5 publications.
Sugar-cane	..	3 ,,
Rice	..	4 ,,
Jawar	..	4 ,,
Oil-seeds	..	2 ,,
Wheat	..	5 ,,
Tobacco	..	1 ,,

and copies were issued to 55 addresses and also published in the *Jarida* (Government Gazette). In the case of tobacco, the district officers were instructed to quote anna rates side by side with the quantity of probable yield. This enables my office to check and verify the figures of outturn.

*Agricultural Statistics.*—This year the International Institute of Rome proposed to take an agricultural census throughout the world. With that end in view the Institute issued specially prescribed schedules and forms but the Government of India on the advice of the D.G., C.I. & S. Calcutta, modified the forms which required only the usual statistics, furnished annually together with the figures of livestock. These were supplied.

The agricultural return was in six tabular forms viz., (1) total area of each district according to professional survey; (2) classification of same into forests, not available for cultivation, cultivable waste other than fallows, current fallows and the net area sown; (3) area and crops irrigated by Government and private canals, tanks, wells, and other sources; (4) areas sown to various crops in each district during the year; (5) livestock, ploughs and carts and (6) incidence of land revenue assessment. The non-Government areas were separately dealt with in three statements, which are all published in Tables Volume II.

Of the total area of the State, viz., 52,926,720 acres, 11·6 per cent. as compared with 12 per cent. in the preceding year represented forest and 53·4 per cent. as against 50·5 per cent. in 1938 was brought under cultivation. The remaining was treated as "not available for cultivation," "cultivable waste" and "fallow." Of the gross cultivated areas 18,501,381 acres were devoted to raising food-grains and pulses. As compared with the previous year it represented 5 per cent. increase.

The statement of livestock accompanying the statistics relate to the Cattle Census taken in 1930.

*Trade Statistics.*—The subject of publishing finance, railway and trade statistics in regular form is still under the consideration of Government. The Customs Commissioner, however, sent us for publication a collection of export and import figures for a period of past 20 years.

The compilation of the usual monthly returns of imports by rail into Hyderabad and Secunderabad was continued and the statistics are given in the Tables volume.

*Other Statistics.*—The other statistics relating to prices, joint stock companies, large industrial establishments, gins at work, textile mills and cotton bales pressed were, as before, collected, analysed and published. They are found incorporated in the Tables volume.

*Expenditure.*—The total expenditure of the Department for the year 1940 amounted to Rs. 21,871, as compared with Rs. 22,438 in the previous year. Of this, Rs. 16,200 represented salaries, Rs. 1,712 contingencies, Rs. 88 livery of peons and Rs. 3,871 miscellaneous.

*Conclusion.*—In concluding this brief report I may state that there was a greater demand for statistical information made on this department during the year, by several Government departments and private individuals, not only of Hyderabad Dominions but also of other parts. Consequently, the volume of work greatly increased, while the staff remained the same since the department was established twelve years ago. As the compilation and publication of agricultural and other statistics serve a two-fold purpose, namely that they are primarily meant for the information of Government and secondarily for the information of the trade and public, completeness and reliability are essential. The returns received from the districts are most of them faulty and lack in accuracy. For a thoroughly intelligent and satisfactory check, therefore, more hands are required. Thus far the staff has done to the best of its ability. After the Census work is over I shall submit a scheme for the re-organisation of the Department.

G. AHMED KHAN,

*Director of Statistics,*

*and Census Commissioner.*





